

1) Functional Requirements

Name:	R. #1. Load data
Summary:	<p>The program must be able to load the data from the csv file that was chosen for this project. It is located inside the project's folder in the following path (../../data/Dataset.csv).</p> <p>The data in the dataset are: "AGE", "JOB", "MARITAL", "EDUCATION", "DEBT", "BALANCE", "HOUSING", "LOAN", "DEPOSIT"</p> <p>This data will be manipulated by the program during its execution.</p>
In:	csv file
Out:	The data is loaded in the program.

Name:	R. #2. Display data
Summary:	<p>The program must be able to display on the screen the loaded data from the csv in a table using a DataGridView component. The label of the columns represent the attributes and each row represents a record of the table.</p> <p>The data are: "AGE", "JOB", "MARITAL", "EDUCATION", "DEBT", "BALANCE", "HOUSING", "LOAN", "DEPOSIT"</p>
In:	The loaded data from the csv file.
Out:	A table with the data of the loaded file.

Name:	R. #3. Filter data
Summary:	<p>The program must be able to filter the data of the table that is displayed on the screen based on a desired attribute (column of the table). The attributes from which the user can choose to filter the table are "AGE", "JOB", "MARITAL", "EDUCATION", "DEBT", "BALANCE", "HOUSING", "LOAN", "DEPOSIT". This option will be displayed using a ComboBox component.</p>
In:	the desired attribute.

Out:	a filtered table will be displayed on the screen in real time.

Name:	R. #4. Show charts
Summary:	The program must be display 5 charts that represent some variables of the dataset. The program must display a bar chart for AGE, JOB and MARITAL. Th program must display a Circular chart for DEBT and HOUSING.
In:	<None>
Out:	5 charts that represent the behavior of a variable.

Name:	R. #5. Classify variable
Summary:	The program must be able to classify a variable using a decision tree. For this particular case the program will classify the clients of the bank which are represented by each of the records from the data table that contains the loaded information. The classes of this problem are yes/no. “Yes” if the client will acquire the subscription to the term deposit and “No” if not.
In:	a record of the table.
Out:	the class of the variable

Name:	R. #6. Train a tree
Summary:	The program must be able to train a tree to using when we should take the predition of some register
In:	Dataset
Out:	Tree train successful

Name:	R. #7. Select the tree
Summary:	The program must be able to select the tree that we would like to use to give prediction about register
In:	<None>

Out:	Own tree
	Library tree

Non Functional requirements:

Name:	NFR. #1. Dataset
Summary:	The program must only read the selected dataset in order to run properly.
In:	
Out:	

Name:	NFR. #2. Programming language
Summary:	The program must be written in the C# language.
In:	
Out:	

Name:	NFR. #3. Framework
Summary:	The program must be developed using the .NET framework.
In:	
Out:	

Name:	NFR. #4. Tree implementation
Summary:	The decision tree must be implemented by us, not by using an external library.
In:	
Out:	

Name:	NFR. #5. Own implementation of tree
Summary:	The decision tree must be implemented by us, not by using an external library.
In:	
Out:	